

CASE STUDY

Neighborhood Mapping & GIS System

A city mapped to its true neighborhood boundaries, so targeting is precise instead of a broad postal code.

— THE WORK

I built a geospatial system that maps a city down to individual neighborhood boundaries and ties every property to its exact tract, so marketing and analysis can target with real precision rather than a broad zip code. It imports and validates hundreds of subdivision boundaries, stores them as true geographic shapes, and serves them on an interactive map.

The imports are idempotent — re-running one never duplicates or corrupts data — and boundary geometry is validated on the way in, because a single malformed shape breaks everything downstream. Each neighborhood also gets its own live page with market stats and a public microsite, so the map is not just a picture but a working data layer.

— TECHNOLOGIES

Mapbox

PostGIS

CRMLS API

Supabase

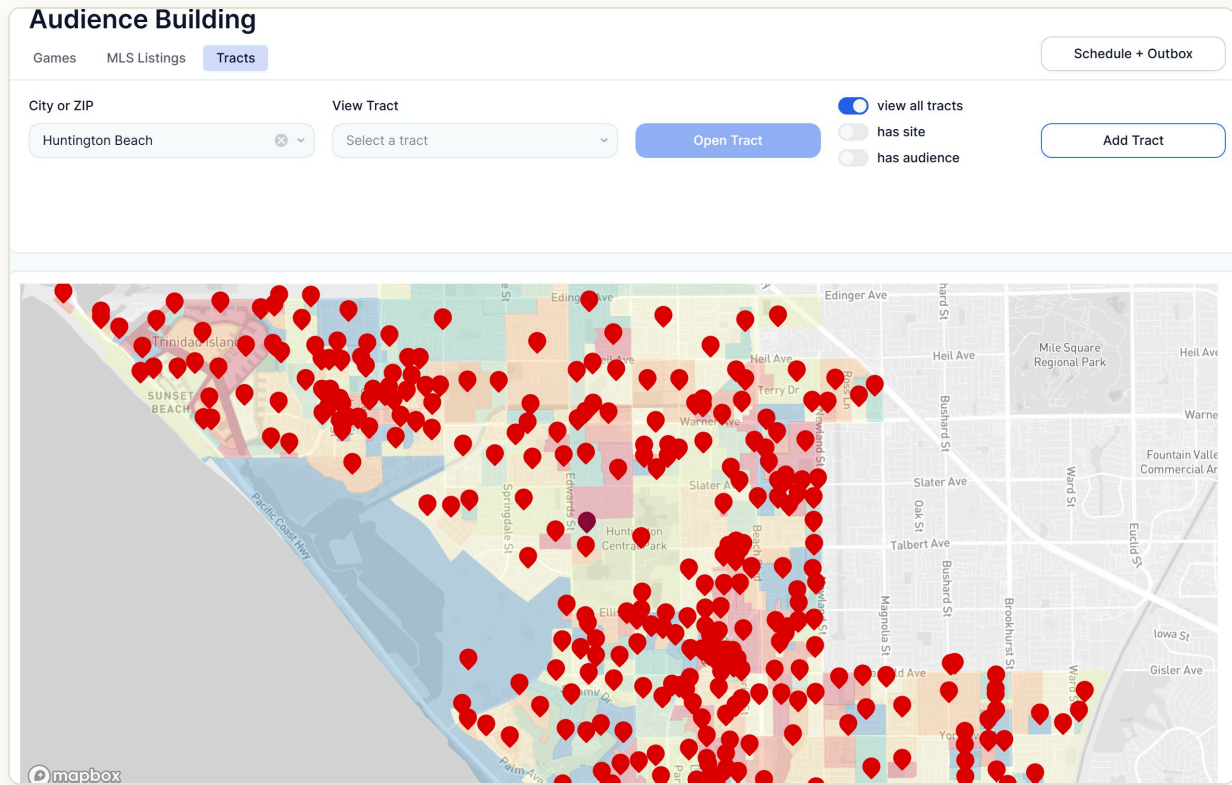
Cloudflare Workers

Python

— WHAT I TOOK AWAY

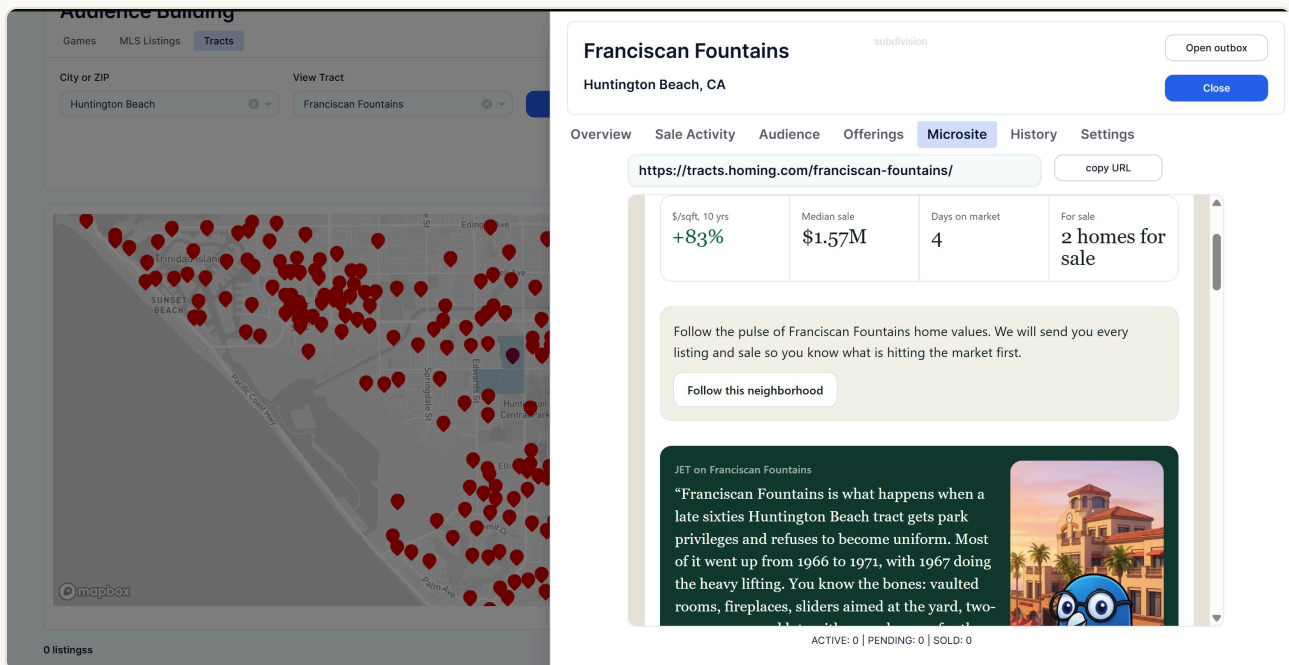
- ✦ Geometry validation and idempotent imports are the unglamorous discipline that keeps a geospatial system from silently corrupting.
- ✦ Place-based targeting, neighborhood rather than zip code, is a materially better unit for any locally-driven business.
- ✦ Getting the data model right early, with geography as a first-class key, pays off across everything built on top.

THE MAP



The tract map: a city broken into its real neighborhood boundaries, each one a targetable audience.

DOWN TO THE TRACT



Every tract gets its own live page – market stats, sale activity, and a public microsite URL.